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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/019,858   | 11/09/2001  | Hideki Kitamura      | 10936-66            | 1848             |
| 24256  | 7590        | 02/12/2004           | EXAMINER            |                  |
| DINSMORE & SHOHL, LLP<br>1900 CHEMED CENTER<br>255 EAST FIFTH STREET<br>CINCINNATI, OH 45202 |             |                      | KOPEC, MARK T       |                  |
|  |             |                      | ART UNIT            | PAPER NUMBER     |
|  |             |                      | 1751                |                  |

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 10/019,858             | KITAMURA ET AL.     |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Mark Kopec             | 1751                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

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The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

The examiner will consider the documents cited in the international search report in a PCT national stage application when the Form PCT/DO/EO/903 indicates that both the international search report and the copies of the documents are present in the national stage file. In such a case, the examiner should consider the documents from the international search report and indicate by a statement in the first Office action that the information has been considered. There is no requirement that the examiner list the documents on a PTO-892 form.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-16 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP 07003100 A.

Note that a full English language copy of this reference has been ordered and will be provided to applicant as soon as possible.

As stated in the International Preliminary examination report, JP 7-3100 discloses:

**PURPOSE:** To obtain a fluororubber composition causing no maldmolding thereof in its molding through polyol curing in a mold, also good in mechanical properties by incorporating a polyol curing composition for fluororubber with, as curing promoter, an organic quaternary phosphonium salt plus a specific compound.

**CONSTITUTION:** The objective composition comprising (A) 100 pts.wt. of a fluororubber produced by copolymerization between (1) vinylidene fluoride and (2) hexafluoropropylene, or between the components 1 and 2 and (3) tetrafluoroethylene, (B) 0.05-2 pts.wt. of an organic quaternary phosphonium salt (e.g. triphenylbenzylphosphonium chloride), (C) 0.05-2 pts.wt. of an organic quaternary ammonium hydrogensulfate (e.g. tetrabutylammonium hydrogensulfate) and/or a salt derived from 1,8-diazabicyclo[5.4.0]-7-undecene, (D) 0.1-10 pts.wt. of a polyhydroxy compound (pref. bisphenol AF) and (E) 0.5-30 pts.wt. of a metal oxide and/or metal hydroxide (e.g. magnesium oxide).

The reference either specifically or inherently meets each of the claimed limitations.

In the event that any minor modifications are necessary to meet the claimed limitations, such as selection of a particular type of carbon black or resultant molded product, such modifications are well within the purview of the skilled artisan.

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Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 333062.

EP '062 discloses composition that exhibits low tendency to foul mold cavities comprising a fluoroelastomer of vinylidene fluoride units and units of at least one other fluorine-containing monomer copolymerizable with vinylidene fluoride; a bisphenol or a polyhydroxy phenol crosslinking agent; and 0.2-4 parts by weight per 100 parts by weight fluoroelastomer of a crosslinking accelerator which is a quaternary ammonium salt of the formula  $R^{n+4} N^{+} X^{-}$  wherein each  $R$  is independently an alkyl group of 2-10 carbon atoms or an aralkyl group of 7-10 carbon atoms and  $X^{-}$  is selected from the group consisting of fluoride, dihydrogen phosphate, periodate, acetate, hydrogen sulfate, methane sulfonate, toluene sulfonate, or an anion of a bisphenol or a polyhydroxy phenol (Abstract). Fillers are often added to the fluoroelastomers described above to improve their molding characteristics and other properties. When a filler is employed it is added to the vulcanization recipe in amounts of up to about 100 parts, preferably between about 15 and about 50 parts per 100 parts fluoroelastomer. Representative fillers which may be used in this invention are reinforcing thermal grade carbon blacks or non-black pigments of relatively low reinforcement characteristics such as clays,

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barytes, etc. Conventional plasticizers, softeners and processing aids, preferably esters or ketones commonly used with elastomers, may also be added to the fluoroelastomers if desired. When the selected quaternary ammonium salts of this invention are used in combination with the particular crosslinking agents, fluoroelastomer compositions are obtained that can be molded repeatedly in the same cavity without large amounts of polymer deposits forming on the walls of the cavity (page 4). See also example 1.

EP 333062 differs from the instant claims (under 35 USC 102) in that the instantly claimed carbon black range (1-20 parts) is not disclosed with sufficient specificity to constitute anticipation. The reference, however, clearly teaches a broad range of "up to about 100 parts". In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

"[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

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In view of the foregoing, the above claims have failed to patentably distinguish over the applied art.

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

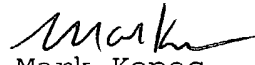
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Kopec whose telephone number is (571) 272-1319. The examiner can normally be reached on Monday - Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Mark Kopec  
Primary Examiner  
Art Unit 1751

MK

February 9, 2004